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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/057,261    04/08/98    O'HAGAN

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EXAMINER
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SAX, R

ART UNIT	PAPER NUMBER
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2748

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LM02/0718

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/057,261

Applicant(s)

O'Hagan

Examiner

Robert Sax

Group Art Unit  
2748



☒ Responsive to communication(s) filed on May 12, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1, 2, 4, 5, and 8-22 is/are pending in the application

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 2, 4, 5, and 8-22 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 2, 4, 5, 8, 10-18, 20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Baji et al.

**Claim 1** of a host computer communicating files GUI display files, including a dictionary and syntax file, to a mobile terminal with microphone for speech input, Baji teaches advancing Macintosh GUI, as a baseline host computer supporting data input by keyboard or mouse, with the advanced man machine interface of a customized personal terminal, which communicates with the host computer, receiving GUI data sent from the host computer to the terminal, sending or receiving dictionary data for recognition of computer instructions, and syntax data for converting speech input into words of text communicated as I/O by peripheral bus or remotely by a communication unit, supporting data input by speech and image recognition in addition to the conventional mouse and keyboard input of the Macintosh GUI (col 2, lines 7-11, 30-37, 47-66; col. 5, lines 9-17, 27-44 and 58-68; col. 20, lines 13-51).

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**Claims 2, 4, 5 and 10** of host computer and memory for storing GUI display files including attributes such as file size, dictionary and syntax files communicated to the terminal, Baji teaches baseline Macintosh SE with GUI well known in the art and further teaches that most information sent to the terminal is obtained as GUI display files generated by the host central processing unit executing applications held in the main memory unit, with both host CPU and main memory attached to the host main bus and communicated to the peripheral bus by a dual port memory buffer; also Hard Disk and CD controllers are also attached to the CD bus or peripheral bus which is accessed by the terminal, therefor GUI display files, operating system command files, dictionary files, syntax files displayed by host computer are communicated to the attached terminal via the busses and buffer or for slower access by the two way communication line if the terminal is portable and detached from the host computer (col. 1, lines 28-31; col. 5, lines 9-31; col. 20, lines 13-51).

**Claim 8** of mobile terminal which maps sequence of phonemes of phonemes into operator instructions, Baji teaches speech recognition by neural a network in the terminal which extracts a stream of phonemes from input speech, converts phonemes to text by referring to a speech recognition dictionary which result is input into a neural net which performs instruction recognition part either by the host CPU by communicating files or locally by the peripheral CPU for applications such as portable hands free note taking (col. 5, lines 35-48; col. 20, lines 13-51).

**Claims 12-14 and 18** of a remote mobile terminal including a processor and memory capable of displaying at least one GUI display file, speech recognition with dictionary and syntax

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of commands for a GUI and **claim 20** of a remote client computer receiving a GUI file from a remote host for the purpose of using the GUI display file to input reference data for commands that may be input by speech using dictionary and syntax files for translating speech input into commands, Baji teaches a host computer and a personalized peripheral terminal with a peripheral CPU, memory and display adapted to the man machine interface of commands performed by the host computer and further extended the conventional keyboard mouse interface to include a speech recognition and instruction recognition interface, which is used for inputting spoken dictation or commands to the host computer exemplified by Macintosh SE or by the peripheral CPU and memory resident in the terminal; for displaying, and storing GUI display files on either the host or personal terminal as invoked by recognition of spoken commands using dictionary and syntax files interface from the host for mobility in receiving speech or displaying a GUI from the host (column 1, lines 20-52; column 20, lines 13-44; and column 21, lines 11-21).

**Claims 15-17** of storing the dictionary and/or syntax file on the mobile terminal, remote unit or remote host, Baji teaches speech recognition by dictionary and syntax files which convert trains of phonemes into words of a dictionary and words by syntax parsing into significant text used for reliable instruction processing with the scope focussed on interactive judging recognition of instructions so as to minimize the data processing required for reliable parsing of computer instructions from speech input of the user whereby a neural net performs error detection and correction for recognizing and correcting speech recognition errors to produce

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the interaction required for a valid computer instruction (column 6, lines 49-53; column 7, lines 11-16, lines 30-36).

**Claim 22** of data collection network by a host computer in communication with mobile computing devices using speech I/O, Baji teaches a mobile terminal capable of both image and speech I/O capable of recognizing data or command input either by communicating with the host computer CPU and memory or locally by the mobile terminal with a peripheral CPU and memory. where individuals carrying the portable terminal with hands free headphones perform tasks using note taking for later lower bandwidth communication to the host computer (Fig. 1, Fig. 16, col. 13, line 62 - col. 14, line 2; col. 20, lines 13-51).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 11, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baji et al in view of Barclay et al.

**Claims 9 and 11** of at least one GUI display file of file size designated by the host computer communicated by packet by a platform independent architecture based on Java,

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**claim 19** of a host computer for general operations in sending a GUI file to a remote client for prompting input from a web page, and **claim 21** of a transmitted GUI file to a second device comprising an HTML file, of a dictionary and syntax file for speech recognition and step 3 of dictionary and syntax files for recognition specific to a web page, Baji teaches communication unit 22 for communicating between a host computer and mobile terminal via a communication line (column 6 lines 1-3) and teaches dictionary and syntax files communicated from a computer to a second remote device which performs speech recognition on speech input but into the second device, or from disk storage or communicated from the remote host computer (column 5, lines 32-48).

Baji et al does not teach JAVA applets for packet communication to HTTP server applications on the Internet.

Barclay teaches real time speech recognition on the Internet by packet communication of speech from the dispatcher of the client processor; with a browser for processing a Web page in HTML comprising graphics, text, and embedded applets programmed by JAVA to access display files from servers of hyper-text or results from executable files; to a remote HTTP server whereby a message packet of quantized features of the clients utterance is forwarded to the dispatcher of the server and acknowledged by a SET RECEIVED SIGNAL returned to the client dispatcher to initiate communication from the client to the server at a rate commensurate with real time latency with packet sizes limited to memory space of the host server (column 6, line 26 - column 7 line 59; column 8, lines 36-64).

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It would have been obvious to an artisan at the time of the invention to expand Baji's general concept of a personalized mobile speech recognizer which converts spoken input into digital data for delivery or communication to a host computer either by portable media or by real-time digital data communication. Although Baji did not teach packet communication for data communication as taught by Barclay, it would have been available and implementable at very low cost by using digital cellular communication to communicate speech from remote locations to the host computer and given such real-time communication capability taught by Barclay to further use platform independent JAVA code for communicating digital data input from a mobile speech recognition terminal to HTTP servers on the Internet thereby accessing data on the Internet by spoken input from remote mobile terminals.

### ***Response to Arguments***

5. Applicant's arguments filed 5/12/2000 have been fully considered but they are not persuasive.

Baji et al does not use the term graphical user interface or GUI but use the broader term "man machine interface" specifically refer to Macintosh SE as an exemplary host computer accessed by a conventional terminal supporting keyboard and mouse input and graphical display output. Baji et al enhance the conventional computer terminal with neural nets by image and speech I/O using speech recognition, image recognition and instruction recognition based on conversion of speech or image input to text. Baji's terminal can be detached from the site of the



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host computer and made portable or mobile by use of a communication unit. Baji suggests the Macintosh SE as a recommended conventional GUI supporting mouse or keyboard for inputting computer instructions into the host computer and receiving GUI display files for image output by a monitor.

All of the claims were considered in the previous office action. With respect to claims 12, 13 and 18, see page 5, lines 12 and 13; and claims 14-17, page 6, line 11 and 12.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sax whose telephone number is (703) 306-3017.

If attempts to reach the examiner are unsuccessful, the examiners supervisor, Krista Zele can be reached at (703) 305-4701.

Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-3900.

The TC2700 Fax Center telephone numbers for attorneys to send in faxes are (703) 308-6306 and (703) 308-6296.

RLS

July 13, 2000



KRISTA ZELE  
SUPERVISORY PATENT EXAMINER  
GROUP 2700